THE ROLE OF SPACE IN THE AIR FORCE

by

Hal E. Hagemeier

Faculty Seminar Leader: Amb Peter Sommer

Faculty Advisor: Col Bob Hughes

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THE ROLE OF SPACE IN THE AIR FORCE

Since the late 1950s when the US successfully launched its first satellite, the Air Force has been intimately involved in the nation's space programs. The Air Force has conducted very visible and successful space activities over the years that support a wide range of military operations. However, for reasons that I will explain shortly, corporate Air Force support for space activities has been spotty, at best. In addition, the role of space in the Air Force has been even less clear than the role of the Air Force in space. In this paper, I will review the recent development of a new Air Force space policy, and subsequent implementation actions.

Before we discuss the policy development, a short historical background is necessary to set the stage. As Carl Builder pointed out, "the Air Force could be said to worship at the altar of technology...the Air Force is, by far, the most attached of the services to toys." Space technology is probably one of the most sophisticated of our nation's capabilities. It is no accident that the Air Force is involved in space, not only for this reason but also because the Air Force considers space simply an extension of the flight envelope (differences in physical laws notwithstanding). In fact, the Air Force conducts most Department of Defense space activities.

Although satellites might be considered the ultimate "toys," they lack a certain personality. They can't be flown like an airplane; there is no similar man-machine interface or personal

affinity between pilot and machine. For years, most Air Force satellite operations as well as development activities were conducted by Air Force Systems Command, a research and development organization. In the few cases where space systems or related space activities (such as surveillance) were conducted by operational commands, they were not consolidated in one command and in some cases bounced among commands as roles and missions periodically changed. Since the only other space activities that had direct military applications were highly classified, most Air Force operators knew very little about space systems, what they did, how they worked, or how they supported Air Force, let alone other military, operations.

This all began to change in the 1980s. A Space Command was formed in 1982 to consolidate the operational activities of space systems. The Reagan military buildup of the early 80s contributed to increased Department of Defense (DOD) space programs, many of which were in the Air Force budget. However, space launch catastrophes in 1985 and 86, vigorous public debate about an anti-satellite capability and the Strategic Defense Initiative, and declining budgets brought much more visibility to space systems. By the late 80s, the launch problems and other setbacks caused the popular press to begin to question whether America had lost its leadership in space. In the process of convincing itself that this was not true, the Air Force leadership decided to review the status and future of the Air Force space program. As the resulting study noted, four principal factors contributed to this decision: 1) the large Air

Force budget for space programs, 2) the perceived lack of corporate influence, scrutiny, and understanding (especially by the operational community) of that investment, 3) the lack of an agreed policy on the Air Force role in space, and 4) the general perception that there existed little consensus on the role of space in the Air Force, especially as the massive effort put into launch recovery was ending with no clear next step.

How, then, was the new policy developed? It started when the Air Force Chief of Staff devoted an entire day to space at a meeting of all the Air Force four-star commanders in April 1988. Some observers believe this was a first; in any case, it was extremely unusual to devote that much time to one subject. Most of the briefing was done by a representative of the Air Force acquisition community, though he had an extensive operational space background. The commanders agreed that a study of these issues was needed and the Chief of Staff immediately directed such a study. It was called the Blue Ribbon Panel on Space and began with a conventional format: a general officer steering group provided the overall supervision of a group of colonels who were to do the real work.

At this point, two interesting things happened. First, the steering group was made up of the vice commanders of three flying commands (SAC, MAC, and TAC) and Systems Command, the commander of Space Command, the Air Force Deputy Chief of Staff for Operations and Plans, and the military assistant to the Assistant Secretary of the Air Force for Acquisition (all three-stars). The group was chaired by the Air Force Vice Chief of Staff. The

seniority of the members showed that the Air Force was serious about the study. More significantly, over half of the members represented the traditional Air Force flying business. Reportedly, there was even discussion about not having any space experts in the group at all; this was clearly not just a space study by and for space cadets.

Second, the colonels working group had representatives from the same organizations, as well as from Air Staff offices for personnel, programming, intelligence, and logistics; the Air Force Logistics Command; and the Office of Space Systems in the Office of the Secretary of the Air Force. In addition, the Strategic Defense Initiative Organization sent an Air Force officer. The working group was chaired by the Commandant of the Air War College and Vice Commander of Air University, Major General Todd. Thus, not only were the major flying commands represented at the working level, but also key functional areas across the Air Force were involved. The group ended up having approximately equal numbers with and without space experience.

The study group convened at Maxwell Air Force Base in May 1988 and presented their final briefing to the Chief of Staff and the Secretary of the Air Force at the end of August. There were three key aspects of the working group's environment. First, the group was given broad security access to normally very closely held programs in order to fully understand the scope of space activities. This included field trips to ground facilities which gave many of the members their first exposure to space operations. About half of the group's time was spent educating

those with little or no space background. As a result, the non-space experts gained a real appreciation for the critical capabilities of space systems and their current and potential impact on the Air Force.

The other two key aspects were related. The interest of the Air Force senior leadership, the roles and missions involved, and the budgetary stakes caused the working group to receive briefings from some very senior commanders. These briefings tended to be less for information and more for advocacy; the working group was being proselytized. In addition, the working group itself clustered roughly into three groups, two of which courted the third. One group consisted of "radical" space advocates and one consisted of "conservative" space advocates. Each tried to convince a group of operators that a more revolutionary or more evolutionary space role was needed. The operators tended to be the jury to which the various space arguments were directed for arbitration. Interestingly enough, with minor exceptions, most of the participants suppressed their own bureaucratic prejudices and concentrated on what made sense for the Air Force.

The study contained several key recommendations: 1) that an updated Air Force space policy be stated (more later), 2) that Air Force operators needed to know more about what space does and can do for them, 3) that space personnel needed to know more about other Air Force operations, 4) that the Air Force develop certain space capabilities and plans, and 5) that the Air Force generally "normalize" space. The intent of normalizing space was

two-fold: educate users enough that they could consider space solutions (along with conventional solutions) to mission requirements, and make space more visible and more like other programs in the Air Force.

The policy letter, signed by both the Secretary and Chief of Staff in December 1988, noted that spacepower will be as decisive in future combat as airpower is today, that the Air Force will be the major provider of space forces for this nation's defense, and that the Air Force must increase its understanding of space at all levels. This policy is remarkable for several reasons. First, the panel convinced the Air Force to make a strong roles and missions statement with respect to the other services. The Army and Navy did not like it and have never fully accepted it, but the Air Force has moved out anyway. Second, the corporate commitment is all the more impressive because of the across-the-board representation of the study group. The space sub-culture would not have accomplished this on their own. Third, it established that Air Force commands should be space experts for their unified commands and that Air Force people should learn more about space in general. Lastly, it committed the Air Force to normalizing the way space programs are established, debated, funded, and operated within the service. This is not only an unusual thing for a department to declare about a mission it has had for years, but in this case it is also unusual that it was recognized by representatives of the regular flying Air Force.

The study group's recommendations were so well received by the Secretary and the Chief that the Chief immediately directed

the Air Staff to develop an implementation plan in coordination with all Air Force major commands. The Chief intended that this study would not just sit on the shelf with the dozens of other space studies completed over the years. The plan took five months to complete and started some real infighting. Up to this point, everything had been relatively academic. Although the support of the study group members was significant, it had required no real commitment. The implementation plan, however, had specific tasks, specific completion dates, and specific organizational responsibilities for participation. The various commands began to realize there were budget implications to some of these actions.

Two interesting results demonstrate the way sub-cultures can interact. First was the influence of the space sub-culture on the rest of the Air Force. The implementation plan specified that the Air Force maintain or take the lead in developing and operating such capabilities as launch systems, an anti-satellite system, a space-based wide area surveillance system, satellite communications systems, and others. Many Air Force operators were reluctant to trade off aircraft or other more traditional capabilities for these systems. Nevertheless, the space portion of the Air Force budget remained relatively unchanged while many other programs were reduced or eliminated. While Space Command and others began diligently developing training and education activities on space programs and their utility to Air Force missions, there were difficulties in eliciting requirements from the other commands while their space expertise was still low and

then convincing them to agree with resulting plans and programs (and especially budgets). Late last year and early this year, though, the Assistant Secretary of the Air Force for Space developed a Space Investment Strategy as a blueprint for the Air Force budget. This strategy was built largely on the study group's recommendations and has had a major influence on the space portion of the Air Force program.

Second was the influence of the rest of the Air Force on the space sub-culture. The implementation plan called for integrating the concept of space-based weapons into Air Force doctrine consistent with treaty constraints. This was derived from a specific recommendation of the study group's operators. Anti-satellite and ballistic missile defense systems were presumably not the intent since they were discussed in other implementation plan tasks. Considering the direct impact this could have on traditional ways the Air Force accomplishes its missions, this task should have generated considerable discussion. It apparently has not. Basically, it has either been ignored or relegated to very long-range research programs. One likely explanation is that this subject has potentially significant political implications and few want to get near the tar baby. Space proponents have grown up with the idea that space is used for peaceful purposes; space weapons, even conventional ones, don't fit very well into the lexicon.

The evolution of Air Force space policy demonstrates three key aspects of bureaucratic politics. First, strong, consistent leadership can make real changes. The Air Force conducted a

thorough review of a topic that probably would otherwise have continued to be ignored (albeit uncomfortably) by most of the department, and the Chief directed a specific implementation plan. However, second, sub-cultures will resist the encroachments of a newcomer, often for budget reasons, but also if the new issues are not clearly understood. The bureaucracy often scuttles, consciously or unconsciously, something it does not support. In this case, several tasks of the implementation plan have not been done at all or only cursorily. This is partly because some of the tasks are exceedingly tough, but also because of bureaucratic resistance. Third, education can play a critical role in establishing and implementing a policy. The more operators learned about space the more they realized its importance to Air Force and other DOD missions. The resulting policy strongly recommended the same kind of education for the whole Air Force. The space sub-culture in the Air Force has succeeded in making itself heard and garnering a lot of initial support from senior Air Force leaders. Now, in the words of the new Air Force Chief of Staff, space must "earn its place at the table."